REMARKS

Reconsideration of the present application in view of the remarks below and the amendments above is respectfully requested.

Claims 1, 4-9, 11, 13-15, 17, 25 and 26 were pending in the present application. Claims 1, 4-9 and 17 were rejected and Claims 11, 13-15, 25 and 26 were objected to. Applicants have amended Claims 1, 5 and 8. Presently, Claims 1, 4-9, 11, 13-15, 17, 25 and 26 are under consideration in this application.

Claim 1 has been amended to delete R^1 is -C_{1-6}alkyl, and R^c is -CO_2R^d and to renumber the Markush group elements in R^1 and R^c.

Claim 5 has been amended to recite "salt" instead of "salts, to delete R^1 is -C_{1-6}alkyl, and R^c is -CO_2H and -CO_2C_{1-3}alkyl, and to renumber the Markush group elements in R^1 and R^c.

Claim 8 has been amended to delete R^1 is methyl, ethyl, propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert.-butyl, n-pentyl, and the first occurrence of 2,2-dimethylpropyloxy, and to renumber the Markush group elements in R^1. The substituent 2,2-dimethylpropyloxy was deleted due to a typographical error in which it appears twice in the definition of R^1. The second occurrence of 2,2-dimethylpropyloxy was not deleted.

These amendments to R^1 and R^c consist of deletions of elements from a Markush group and do not add new matter to the present application.

REJECTION UNDER 35 USC § 112
SECOND PARAGRAPH FOR INDEFINITENESS

The Examiner rejected Claim 5 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The Examiner indicated that recitation of "or pharmaceutically acceptable salts thereof" in Claim 5 renders Claim 5 indefinite and suggested the replacement of "salts" with "salt."

Applicants have amended Claim 5 to recite "salt" instead of "salts."

In view of the above amendments, Applicants respectfully request reconsideration and withdrawal of the rejection of Claim 5 under 35 USC 112, second paragraph.

REJECTION UNDER 35 USC § 102
FOR LACK OF NOVELTY

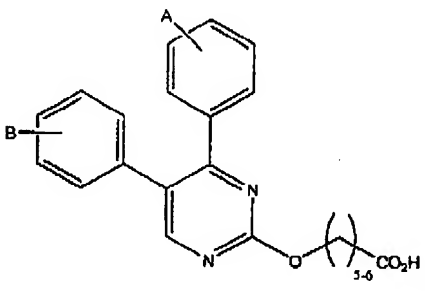
The Examiner rejected Claims 1, 7, 8 and 17 under 35 USC 102(b) as being anticipated by the second compound in Tanaka et al., Chemical & Pharmaceutical Bulletin 42(9), 1828-1834, 1994; CA123:9410, 1995 (CAPLUS Abstract provided).

Applicants have amended Claim 1 to exclude R^1 is -C1-6alkyl, and Claim 8 to exclude R^1 is methyl, ethyl, propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert.-butyl, and n-pentyl. Claims 7 and 17 depend from Claim 1 and incorporate the amendments to Claim 1. Claims 7 and 17 depend from Claim 1 and incorporate the amendments to Claim 1.

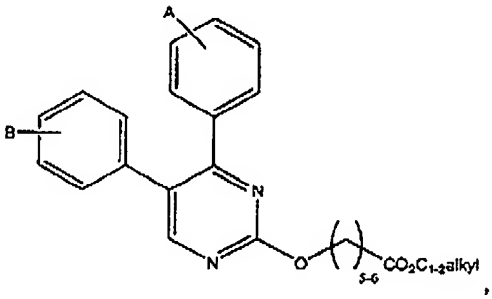
Applicants have amended Claims 1 and 8 to exclude compounds which read on the species of the Tanaka reference. As currently amended, the compounds of the present invention cannot have a R^1 = C1-6alkyl group. Therefore, the compounds disclosed in the Tanaka reference do not fall within the scope of the amended claims of the present invention.

The Examiner also stated that Claims 1 and 17 are rejected under 35 USC 102(b) as being anticipated by Dereu et al. (US 5, 366,982), which teaches a genus of pyrimidine compounds of formula I, including two pyrimidinyloxy compounds (see column 3, formula 1, see column 3-40 and see column 28, lines 9 and 17).

Applicants submit that the Dereu et al. (US 5,366,982) reference discloses specific pyrimidinyloxy compounds that fall within the following general structures:



and



wherein the phenyl rings are optionally further substituted with substituents A and B, and the methylene linker between the oxygen and acid/ester group is optionally substituted with up to 2 methyl groups.

Applicants have amended Claim 1 to exclude R^c is $-CO_2R^d$. Claim 17 depends from Claim 1 and incorporates the amendment to Claim 1.

The Applicants have amended Claim 1 to exclude compounds which read on the species of the Dereu reference. As currently amended, the compounds of the present invention cannot have a R^c is $-CO_2R^d$. Therefore, the compounds disclosed in the Dereu reference do not fall within the scope of the amended claims of the present invention.

In view of the above amendments, Applicants respectfully submit that Claims 1, 7, 8 and 17 are novel, and request that the rejection of Claims 1, 7, 8 and 17 under 35 USC § 102(b) be withdrawn.

REJECTION UNDER 35 USC § 103
FOR OBVIOUSNESS

The Examiner rejected Claims 1, 4-9 and 17 under U.S.C. 103(a) as being unpatentable over Dereu et al. (US 5,366,983).

The Examiner stated that the teachings of Dereu et al., as discussed in the above 102 rejection, are incorporated herein. The Examiner indicated that it would have been obvious to one of ordinary skill in the art at the time the invention was made, to make compounds using the teachings of Dereu et al. including compounds with various substituents and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outlined above.

Applicants submit that Claims 1, 4-9 and 17 of the instant application are not prima facie obvious over Dereu et al. (US 5,366,983). It would not have been obvious: 1) to make the specific compounds or genus of compounds of the present invention, and 2) to expect that the specific compounds and the genus of compounds of the present invention are useful as CB-1 antagonists/inverse agonists based on the teachings of Dereu et al., and the uses taught by the art.

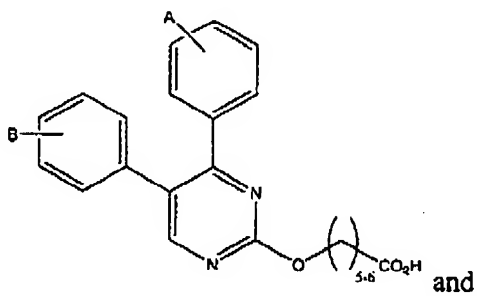
The genus claims of the present invention and those of Dereu et al. differ in scope, and are therefore not equivalent. There is no teaching or suggestion in Dereu et al. to make the specific

compounds or the genus of compounds disclosed in the present application. There is also no teaching or suggestion in Dereu et al. to modify the compounds or genus of US 5, 366, 983 to make the compounds and genus of compounds of the present invention. One of skill in the art would not have been motivated to make the compounds or genus of compounds of the present invention based on the teachings and disclosures in Dereu et al.

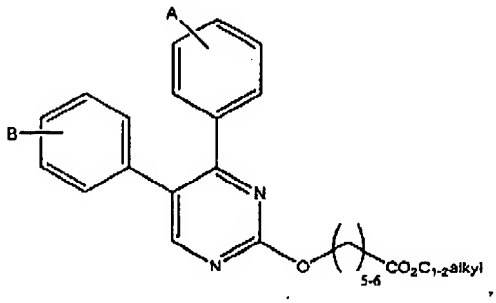
The compounds of the present invention and the compounds of disclosed in Dereu et al. have different uses. Dereu et al. discloses compounds that are selective leukotriene B 4 (LTB4) antagonists useful for the treatment of disorders involving LTB4 agonist mediated activity, such as inflammatory or hypersensitivity responses in animal tissues, such as inflammatory bowel disease, reperfusion injury, chronic lung diseases, arthritic conditions and inflammatory conditions associated with asthma (see 1, line 61 to column 2 line 2). The compounds of the present invention are cannabinoid-1 receptor antagonists/inverse agonists useful for treating disorders associated with excessive food intake, such as obesity, bulimia nervosa, and compulsive eating disorders.

Dereu et al. does not teach or suggest that the compounds in US 5,366,983 are useful as CB-1 antagonists/inverse agonists to treat disorders associated with excessive food intake, such as obesity. Dereu et al. does not teach or suggest that the compounds of the present invention are useful as cannabinoid-1 receptor antagonists/inverse agonists to treat disorders associated with excessive food intake, such as obesity. There is no motivation to modify the compounds disclosed by Dereu et al., which are useful as LTB4 antagonists for treating inflammation, to obtain the presently claimed compounds, which are CB-1 antagonists/inverse agonists useful for treating obesity and disorders associated with excessive food intake. Therefore, the compounds of amended Claims 1, 4-9 and 17 are not prima facie obvious over Dereu et al.

Applicants further submit that all of the specific pyrimidinyloxy compounds disclosed by Dereu et al. have an acid or ester group on the alkoxy linker attached to the pyrimidine core, as shown below:



and



wherein the phenyl rings are optionally further substituted with substituents A and B, and the methylene linker between the oxygen and acid/ester group is optionally substituted with up to 2 methyl groups. Dereu et al. reference does not teach or suggest specific compounds in which there is no acid or ester substituent on the alkoxy linker on the pyrimidinyl core.

As noted above, Applicants have amended Claim 1 to exclude R^c is $-CO_2R^d$. Claim 17 depends from Claim 1 and incorporates the amendment to Claim 1. As noted above, the amended claims of the present invention do not allow for acid or ester substitution on the -R1 substituent of -O-C1-6alkyl. Dereu et al. does not teach, suggest or motivate one of ordinary skill in the art to make the compounds in amended Claims 1, 4-9 and 17.

Applicants submit that Claims 1, 4-9 and 17 are not prima facie obvious, and respectfully request that the rejection under 35 USC § 103(a) be withdrawn.

Allowable Subject Matter

The Examiner stated that 11, 13-15, 25 and 26 are objected to as being dependent on a rejected base Claim, but would be allowable if rewritten in independent form including all of the limitations of the base Claim and any intervening Claims.

Applicants submit that Claim 11 is an independent Claim; it does not depend from a rejected base Claim. Applicants further submit that Claims 13-15 and 25 are dependent from Claim 11, and are therefore not dependent from a rejected base Claim.

Applicants also submit that Claim 26 is dependent on Claim 1 and incorporates the amendments to Claim 1.

In view of the amendment to Claim 1, from which Claim 26 depends, and the lack of dependency of Claims 11, 13-15 and 25 on Claim 1, Applicants respectfully submit that the present claims are novel and request reconsideration and withdrawal of the objection to Claims 11, 13-15, 25 and 26 as being dependent upon rejected a base Claim.

Applicants believe that all of the rejections have been overcome and therefore earnestly solicit an early Notice of Allowance.

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Respectfully submitted,

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